

REMARKS

Claims 1, 4-6, 9-63, 65 and 67-73 are pending in the instant application. Claims 22-57 have previously been withdrawn and claims 2, 3, 7, 8, 64 and 66 have been previously canceled.

The Applicants thank the Examiner for the indication that claims 1, 4-6 and 9-21 are in condition for allowance.

Claims 58-62 have been amended. Support for the amendments to claims 58-62 may be found in FIGS. 1-6 and 12 and pages 9-14 of the application as originally filed. No new matter has been entered by this amendment. Claims 63, 65 and 67-72 have been cancelled leaving claims 1, 4-6, 9-21, 58-62 and 73 for further consideration.

Claims 58-62, 63, 65 and 67-72 stand rejected under 35 U.S.C. 112, first paragraph, and claims 58-62 stand rejected under 35 U.S.C. § 112, second paragraph. Furthermore, claims 63, 65, 67, 69, 71 and 72 stand rejected under 35 U.S.C. § 102(b) and claim 73 stands rejected under 35 U.S.C. § 103(a). Claims 58-62, 68 and 70 are not rejected over the prior art.

Rejections Under 35 USC § 112

First Paragraph

Claims 58-62

Claims 58-62 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement. The Examiner states that claim 58 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention.

The Examiner specifically states that the previously presented amendment to claim 58 includes a column-shaped protrusion formed on the emission surface of the light guide plate, the surface of such protrusion including a plurality of dots having V-shaped grooves. Claim 58 has been amended to clarify that a light guide plate according to the present invention includes a **protrusion part formed as a column shape on the first light emission surface, and a light reflection pattern formed on an upper surface of the protrusion part, for reflecting light toward the second light emission surface, the light reflection pattern having a cross-sectional profile of V-shaped grooves.**

Support for this amendment may be found at least in FIGS. 1-6 and 12 and pages 9-14 of the application as originally filed.

Claims 63, 65 and 67-72

Claims 63, 65 and 67-72 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner states that claim 58 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention. Claims 63, 65 and 67-72 have been cancelled rendering any rejection thereto moot.

Second Paragraph

Claims 58-62

Claims 58-62 stand rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Examiner specifically states that the limitation “the V-shaped grooves being linked together” of claim 58 is unclear. Claims 59-62 stand rejected for their dependency on claim 58.

The limitation “V-shaped groove” refers to the reflection pattern formed on an upper surface of the protrusion part. When seen from a cross-sectional perspective, the reflection pattern appears to have a “V” shape, including a first light reflecting surface forming one branch of the V and a second light reflecting surface forming the other branch of the V. The limitation “the V-shaped grooves being linked together” simply indicates that one set of first and second light reflecting surfaces which constitute a V-shape are disposed adjacent to another set of first and second light reflecting surfaces which constitute another V-shape.

Accordingly, it is respectfully requested the rejection to claim 58, including claims depending therefrom, i.e., claims 59-62 under § 112, second paragraph, be withdrawn.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 63, 65, 67, 69, 71 and 72

Claims 63, 65, 67, 69, 71 and 72 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Pristash et al. (U.S. Patent No. 5,136,480, hereinafter "Pristash"). The Examiner states that Pristash discloses all of the elements of the abovementioned claims, primarily in FIGS. 3, 5 and 6 and column 4, lines 56-58. Claims 63, 65, 67, 69, 71 and 72 have been cancelled rendering any rejections thereto moot.

Claim Rejections Under 35 U.S.C. § 103(a)

Claim 73

Claim 73 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ryu et al. (U.S. Patent Publication No. 2002/0181223, hereinafter "Ryu") in view of Ishikawa et al. (U.S. Patent No. 5,600,455, hereinafter "Ishikawa"). The Examiner states that Ryu discloses all of the elements of claim 73 except, *the protrusion having grooves*, which the Examiner further states is disclosed primarily in FIG. 7 of Ishikawa. Applicants respectfully traverse.

Ryu is directed to a light guide panel for a backlight. (See Abstract). Ryu discloses a light guide plate ("LGP") 2 including a plurality of cells 21 which are embossed into the surface of the LGP. Each cell 21 forms a depression in the LGP. Furthermore, each cell 21 includes a plurality of microcells 214 which are raised or lowered from the bottom of the depressed cell 21. (See FIG. 7a-7b and paragraph 39).

Ryu fails to disclose, teach or suggest **first and second light emission surfaces for emitting light, wherein the first emission surface includes a plurality of circular cylinder-shaped protrusions having grooves** as claimed in independent claim 73. The cells 21 of Ryu, which the Examiner indicates act as protrusions, are in fact depressions in the material of the LGP. Therefore, the cells 21 do not protrude from the LGP. (See particularly the inset magnified cross-sectional view provided in FIG. 7a). Also, as admitted by the Examiner on page 8 of the present Office action, Ryu fails to disclose the grooves in the protrusions as claimed in independent claim 73. Furthermore, the depressions of Ryu can only disperse light and are not capable of reflecting light towards the LCD panel.

Ishikawa is directed to a prismatic member with coarsened portions or triangular prismatic and semi-circular prismatic members arranged on a flat light emitting surface. (See

Abstract). Ishikawa disclose a transparent member 1 disposed above a light guide plate 6. The transparent member 1 includes convex portions 10 and coarsened surfaces 11 disposed on the convex portions 10. (See FIGS. 7-10 and column 3, line 13 through column 4, line 15.)

Ishikawa fails to satisfy the deficiencies of Ryu with respect to independent claim 73, namely, Ishikawa does not teach or suggest **a light guide plate comprising: a light incident surface for receiving light; and first and second light emission surfaces for emitting light, wherein the first emission surface includes a plurality of circular cylinder-shaped protrusions having grooves.**

It is respectfully submitted that combination of Ryu et al and Ishikawa et al. teach away from the present application as Ishikawa et al. disclose a separate transparent member (1) disposed **above** a light guide plate (3) having a diffusion plate (7) disposed therebetween, as illustrated in FIG. 1 of Ishikawa et al.

On the contrary, the present application discloses **a light guide plate** for maximizing the luminance on a display panel of an LCD device without increasing the number of components for the LCD device. (See page 3, lines 5-7 of the specification as originally filed.) Neither Ryu et al. nor Ishikawa et al. disclose a light guide plate having an emission surface as claimed in claim 73.

The light guide plate including a light reflection pattern in claim 73 of the present application designed for an edge type light guide reflects and refracts incident light in perpendicular direction toward an LCD panel to improve the brightness of the LCD panel. On the contrary, a transparent member 1 in FIG. 6 of Ishikawa is designed for a direct transmission type display and the coarse surface 11 on the prism of the transparent member 1 functions as light diffusing member to improve light uniformity over the light guide plate. In addition, the coarsened surfaces 11 do not constitute grooves as claimed and described in the specification as filed, but rather a random pattern of removed material.

There would be no motivation to combine the transparent member 1 of Ishikawa with the light guide panel 2 of Ryu because they perform completely different functions within their respective backlight assemblies. The transparent member 1 of Ishikawa disperses light from a direct illumination source, e.g., the light guide plate 6, and the light guide plate 2 of Ryu reflects and refracts incident light in a perpendicular direction toward an LCD panel to improve

brightness thereof. Neither reference suggests the combination of the coarsened surface 11 with the depressed cells 21. Therefore, any suggestion to combine would be a result of improper hindsight.

Thus, Applicants submit that neither Ryu nor Ishikawa, alone or in combination, render obvious the subject matter of claim 73.

Accordingly, it is respectfully requested the rejection to claim 73 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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